AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A semiconductor device, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed;

a single-crystal silicon thin film having bonded thereto a second SiO_2 film, which single-crystal silicon thin film is bonded with the insulating substrate on a partial region of the insulating substrate via the first and second SiO_2 films; and

a non-single-crystal silicon thin film comprising an active area of a transistor and formed on the insulating substrate in a region where the single-crystal silicon thin film is not bonded with the insulating substrate, which non-single-crystal silicon thin film is formed on the insulating substrate via the first SiO_2 film and a third SiO_2 film,

wherein the second SiO_2 film and the third SiO_2 film are of different thicknesses.

Claim 2 (Canceled).

Claim 3 (Previously Presented): The semiconductor device as defined in claim 1, wherein the single-crystal silicon thin film has a thickness of not more than about 70nm.

Claim 4 (Previously Presented): The semiconductor device as defined in claim 1, wherein the single-crystal silicon thin film has a thickness of not more than about 20nm.

Claim 5 (Previously Presented): The semiconductor device as defined in claim 1, wherein the non-single-crystal silicon thin film comprises polycrystalline silicon.

Claim 6 (Withdrawn): The semiconductor device as defined in claim 1, wherein the non-single-crystal silicon thin film comprises continuous grain silicon.

Claim 7 (Withdrawn): The semiconductor device as defined in claim 1, wherein the non-single-crystal silicon thin film comprises amorphous silicon.

Claim 8 (Withdrawn): The semiconductor device as defined in claim 7, wherein a non-single crystal silicon thin-film transistor, which includes a gate insulating film made up of at least one insulating film including silicon nitride, is formed using the amorphous silicon thin film.

Claim 9 (Currently Amended): A ~~The~~ semiconductor device ~~as defined in claim 1~~, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed;

a single-crystal silicon thin film having bonded thereto a second SiO_2 film, which single-crystal silicon thin film is bonded with the insulating substrate on a partial region of the insulating substrate via the first and second SiO_2 films; and

a non-single-crystal silicon thin film formed on the insulating substrate in a region where the single-crystal silicon thin film is not bonded with the insulating substrate, which non-single-crystal silicon thin film is formed on the insulating substrate via the first SiO_2 film and a third SiO_2 film,

wherein the second SiO_2 film and the third SiO_2 film are of different thicknesses, and

wherein a transistor formed using the single-crystal silicon thin film is arranged such that, from an insulating substrate side, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order.

Claim 10 (Previously Presented): The semiconductor device as defined in claim 9, wherein at least a part of the transistor formed using the single-crystal silicon thin film includes an interlayer insulating film and metal interconnects provided further on the single-crystal silicon thin film.

Claim 11 (Withdrawn): The semiconductor device as defined in claim 9, wherein the transistor formed using the single-crystal silicon thin film is arranged such that, from an insulating substrate side, an interlayer insulating film, a metal interconnects layer, an interlayer insulating film, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order, and in at least a part of the transistor, an interlayer insulating film and metal interconnects are further provided on the single-crystal silicon thin film.

Claim 12 (Previously Presented): The semiconductor device as defined in claim 1, wherein the insulating substrate comprises a high strain point glass including an alkaline-earth alumino-borosilicate glass.

Claim 13 (Previously Presented): The semiconductor device as defined in claim 1, wherein the insulating substrate comprises any one of a barium borosilicate glass, a barium alumino-borosilicate glass, an alkaline-earth alumino-borosilicate glass, a borosilicate glass, an alkaline-earth-zinc-lead-alumino-borosilicate glass, and an alkaline-earth-lead-alumino-borosilicate glass.

Claim 14 (Previously Presented): The semiconductor device as defined in claim 1, wherein a difference of linear expansion between the insulating substrate and the single-crystal silicon thin film is about not more than 250ppm at temperatures in a range between substantially room temperature and 600°C.

Claim 15 (Previously Presented): The semiconductor device as defined in claim 1, wherein the insulating substrate comprises a high strain point glass whose strain point is not less than 500°C.

Claims 16 (Canceled).

Claim 17 (Withdrawn): A semiconductor device, comprising:

an insulating substrate having a surface on which an SiO2 film is formed; and

a single-crystal silicon substrate bonded with the insulating substrate,

wherein, the single-crystal silicon substrate includes a porous silicon layer and a single-crystal silicon thin film formed on the porous silicon layer and has a surface which is on a single-crystal silicon thin film side with respect to the porous silicon layer and on which an SiO2 film is formed,

the surface of the insulating substrate, where the SiO2 film is formed, is bonded with the surface of the single-crystal silicon substrate, where the SiO2 film is formed, and

a part of the single-crystal silicon substrate is separated at the porous silicon layer, and the porous silicon layer is removed from a remaining part of the single-crystal silicon substrate, the remaining part still being on the insulating substrate after the part is separated.

Claim 18 (Withdrawn): The semiconductor device as defined in claim 17, wherein, in different regions on the insulating substrate, the single-crystal silicon thin film and a non-single-crystal silicon thin film are formed.

Claim 19 (Withdrawn): The semiconductor device as defined in claim 17, wherein the single-crystal silicon thin film is not more than about 70nm thick.

Claim 20 (Withdrawn): The semiconductor device as defined in claim 17, wherein the single-crystal silicon thin film is not more than about 20nm thick.

Claim 21 (Withdrawn): The semiconductor device as defined in claim 18, wherein the non-single-crystal silicon thin film comprises polycrystalline silicon.

Claim 22 (Withdrawn): The semiconductor device as defined in claim 18, wherein the non-single-crystal silicon thin film comprises continuous grain silicon.

Claim 23 (Withdrawn): The semiconductor device as defined in claim 18, wherein the non-single-crystal silicon thin film comprises amorphous silicon.

Claim 24 (Withdrawn): The semiconductor device as defined in claim 23, wherein a non-single crystal silicon thin-film transistor, which includes a gate insulating film comprising at least one insulating film including silicon nitride, is formed using the amorphous silicon thin film.

Claim 25 (Withdrawn): The semiconductor device as defined in claim 17, wherein a transistor formed using the single-crystal silicon thin film is arranged such that, from an insulating substrate side, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order.

Claim 26 (Withdrawn): The semiconductor device as defined in claim 25, wherein at least a part of the transistor formed using the single-crystal silicon thin film includes an interlayer insulating film and a metal interconnects layer provided further on the single-crystal silicon thin film.

Claim 27 (Withdrawn): The semiconductor device as defined in claim 17, wherein the transistor formed using the single-crystal silicon thin film is arranged such that, from an insulating substrate side, an interlayer insulating film, a metal interconnects layer, an interlayer insulating film, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order, and in at least a part of the transistor, an interlayer insulating film and metal interconnects are further provided on the single-crystal silicon thin film.

Claim 28 (Withdrawn): The semiconductor device as defined in claim 17, wherein the insulating substrate comprises a high strain point glass including an alkaline-earth alumino-borosilicate glass.

Claim 29 (Withdrawn): The semiconductor device as defined in claim 17, wherein the insulating substrate comprises any one of a barium borosilicate glass, a barium alumino-borosilicate glass, an alkaline-earth alumino-borosilicate glass, a borosilicate glass, an alkaline-earth-zinc-lead-alumino-borosilicate glass, and an alkaline-earth-lead-alumino-borosilicate glass.

Claim 30 (Withdrawn): The semiconductor device as defined in claim 17, wherein a difference of linear expansion between the insulating substrate and the single-crystal silicon substrate is about not more than 250ppm at temperatures in a range between substantially room temperatures and 600°C.

Claim 31 (Withdrawn): The semiconductor device as defined in claim 17, wherein the insulating substrate comprises a high strain point glass whose strain point is not less than 500°C.

Claim 32 (Withdrawn): The semiconductor device as defined in claim 17, wherein on a substantially entire surface of the insulating substrate, the single-crystal silicon thin film is formed.

Claims 33-42 (Canceled).

Claim 43 (Withdrawn): A semiconductor structure comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed; and

a single-crystal silicon substrate bonded with the insulating substrate, wherein

the single-crystal silicon substrate includes a buried oxide layer, a hydrogen ion implantation section in which a distribution of hydrogen ions peaks in the buried oxide layer, and

a single-crystal silicon thin film formed on the buried oxide layer, the single-crystal silicon substrate having a surface which is on a single-crystal silicon thin film side with respect to the buried oxide layer and on which a second SiO_2 film is formed, and

the surface of the insulating substrate on which the first SiO_2 film is formed is bonded with the surface of the single-crystal silicon substrate on which the second SiO_2 film is formed.

Claim 44 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the single-crystal silicon substrate is bonded to only a portion of the surface of the insulating substrate on which the first SiO_2 film is formed.

Claim 45 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the single-crystal silicon thin film has a thickness of not more than about 70nm.

Claim 46 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the single-crystal silicon thin film has a thickness of not more than about 20nm.

Claim 47 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the insulating substrate comprises a high strain point glass including an alkaline-earth alumino-borosilicate glass.

Claim 48 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the insulating substrate comprises any one of a barium borosilicate glass, a barium alumino-borosilicate glass, an alkaline-earth alumino-borosilicate glass, a borosilicate glass, an alkaline-earth-zinc-lead-alumino-borosilicate glass, and an alkaline-earth-lead-alumino-borosilicate glass.

Claim 49 (Withdrawn): The semiconductor structure as defined in claim 43, wherein a difference of linear expansion between the insulating substrate and the single-crystal silicon substrate is about not more than 250ppm at temperatures in a range between substantially room temperatures and 600°C.

Claim 50 (Withdrawn): The semiconductor structure as defined in claim 43, wherein the insulating substrate comprises a high strain point glass whose strain point is not less than 500°C.

Claim 51 (Currently Amended): A semiconductor device, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed;

a single-crystal silicon thin film having bonded thereto a second SiO_2 film, which single-crystal silicon thin film is bonded to the insulating substrate via the first and second SiO_2 films, the single-crystal silicon thin film having a substantially uniform thickness and a substantially damage-free surface; and

a non-single-crystal silicon thin film comprising an active area of a transistor and formed on the insulating substrate in a region where the single-crystal silicon thin film is not bonded with the insulating substrate, which non-single-crystal silicon thin film is formed on the insulating substrate via the first SiO_2 film and a third SiO_2 film,

wherein

the second SiO_2 film and the third SiO_2 film are of different thicknesses.

Claim 52 (Previously Presented): The semiconductor device as defined in claim 51, further comprising:

transistor elements formed from the single-crystal silicon thin film.

Claim 53 (Currently Amended): A ~~The~~ semiconductor device ~~as defined in claim 52~~, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed;

a single-crystal silicon thin film having bonded thereto a second SiO_2 film, which single-crystal silicon thin film is bonded to the insulating substrate via the first and second SiO_2 films, the single-crystal silicon thin film having a substantially uniform thickness and a substantially damage-free surface;

a non-single-crystal silicon thin film formed on the insulating substrate in a region where the single-crystal silicon thin film is not bonded with the insulating substrate, which non-single-crystal silicon thin film is formed on the insulating substrate via the first SiO_2 film and a third SiO_2 film; and

transistor elements formed from the single-crystal silicon thin film,

wherein the second SiO_2 film and the third SiO_2 film are of different thicknesses, and

wherein the transistor elements are arranged such that, from an insulating substrate side, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order.

Claim 54 (Previously Presented): A semiconductor device, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed; and

a single-crystal silicon thin film bonded with the insulating substrate on a partial region of the insulating substrate,

wherein the single-crystal silicon thin film has a substantially uniform thickness and has a surface substantially free of damage,

the single-crystal silicon thin film has bonded thereto a second SiO_2 film,

the surface of the insulating substrate, where the first SiO_2 film is formed, is bonded with the single-crystal silicon thin film, where the second SiO_2 film is formed, and

a transistor formed using the single-crystal silicon thin film is arranged such that, from an insulating substrate side, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order.

Claim 55 (Previously Presented): A semiconductor device, comprising:

an insulating substrate having a surface on which a first SiO_2 film is formed;

a single-crystal silicon thin film bonded to the insulating substrate, the single-crystal silicon thin film having a substantially uniform thickness and a substantially damage-free surface; and

transistor elements formed from the single-crystal silicon thin film,

wherein

the single-crystal silicon thin film has bonded thereto a second SiO_2 film,

the surface of the insulating substrate on which the first SiO_2 film is formed is bonded with the second SiO_2 film thereby bonding the single-crystal silicon thin film to the insulating substrate,

the bonded single-crystal silicon thin film is disposed on only part of the insulating substrate on which the first SiO_2 film is formed, and

the transistor elements are arranged such that, from an insulating substrate side, a gate electrode, a gate insulating film, and the single-crystal silicon thin film are formed in this order.

Claim 56 (New): The semiconductor device as defined in claim 1, wherein the second SiO_2 film is substantially provided only in an area covered by the single-crystal silicon thin film.

Claim 57 (New): The semiconductor device as defined in claim 1, wherein an area of the insulating substrate covered by the single-crystal silicon thin film is essentially the same as an area of the insulating substrate covered by the second SiO_2 film.

Claim 58 (New): The semiconductor device as claimed in claim 1, wherein the non-single-crystal silicon thin film is not formed on the insulating substrate via the second SiO_2 film.

Claim 59 (New): The semiconductor device as claimed in claim 1, wherein the second SiO_2 film is provided in an area corresponding to an area of the single-crystal silicon thin film.

Claim 60 (New): The semiconductor device as defined in claim 51, wherein the second SiO_2 film is substantially provided only in an area covered by the single-crystal silicon thin film.

Claim 61 (New): The semiconductor device as defined in claim 51, wherein an area of the insulating substrate covered by the single-crystal silicon thin film is essentially the same as an area of the insulating substrate covered by the second SiO_2 film.

Claim 62 (New): The semiconductor device as claimed in claim 51, wherein the non-single-crystal silicon thin film is not formed on the insulating substrate via the second SiO_2 film.

Claim 63 (New): The semiconductor device as claimed in claim 51, wherein the second SiO_2 film is provided in an area corresponding to an area of the single-crystal silicon thin film.